



This diploma certifies that

Juan Antonio Roldán García

with identification/passport nº: 74682055C, has successfully completed the 100 hour online training course leading to this:

Certificate of Knowledge in Hydrogen and Fuel Cell Technology for Technicians: Hydrogen production & handling

and has been awarded 4 ECTS

Villanueva de Gállego (Zaragoza), 18th December 2017

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Purushothaman Vellayani Aravind
Project Manager



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Andrew Tunncliffe
Director of Internationalisation and Quality Assurance

Certificate of Knowledge in Hydrogen and Fuel Cell Technology for Technicians: Hydrogen production & handling

- Processes for Hydrogen Production
 - Electrolytic processes
 - Thermochemical methods
 - Other hydrogen production sources
- Purification
 - Introduction to the hydrogen purification
 - Adsorption/desorption process
 - Selective reactors
 - Membranes
- Storage and transport of Hydrogen
 - Introduction to storage and transport of hydrogen
 - Gaseous hydrogen
 - Liquid hydrogen
 - Solid hydrogen storage
- Surface adsorbed hydrogen storage
- Chemical storage
- Handling
 - Introduction to storage and transport of hydrogen
 - Gaseous hydrogen
 - Liquid hydrogen
 - Solid hydrogen storage
 - Surface adsorbed hydrogen storage
 - Chemical storage
- Regulations, Codes and Standards
 - Introduction to hydrogen regulations, codes and standards
 - Regulations
 - Codes and standards

